

**REMARKS**

**Rejections Under 35 U.S.C. 103(a)**

**Claims 37-41**

Claims 37-41 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Langer et al.  
The Examiner stated as follows:

Langer teaches the claimed apparatus having a computer (13) that utilizes a CAD program (Col. 2, lines 47) and a rapid prototyping apparatus (Col. 1, lines 10-21), specifically a stereolithography device.

Langer fails to teach cured structure shapes.

The creation of the product for joining together to form a mold and means of injecting material between the molds is an intended use of the apparatus. Taking the product of the rapid prototyping apparatus and combining the products to form a cavity and with sealable mating edges does not further limit the structural claims of the apparatus.

The CAD designs when inputted into the computer system will allow for creation of various structures by the rapid prototyping apparatus depending CAD design data files. It would have been obvious to one of ordinary skill in the art to modify Langer with different designs in the CAD files for implementing into the computer because it allows for creating various designs as desired by the user.

In addition, Claims 37-41 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hull. The Examiner stated:

Hull teaches the claimed apparatus having a computer (28) that utilizes a CAD program (Col. 2, line 30) and a rapid prototyping apparatus (Col. 2, lines 37-48), specifically a stereolithography device.

Hull fails to teach the cured structure shapes.

The creation of the product for joining together to form a mold and means of injecting material between the molds is an intended use of the apparatus. Taking the

product of the rapid prototyping apparatus and combining the products to form a cavity and with sealable mating edges does not further limit the structural claims of the apparatus.

The CAD designs when inputted into the computer system will allow for creation of various structures by the rapid prototyping apparatus depending CAD design data files. It would have been obvious to one of ordinary skill in the art to modify Langer with different designs in the CAD files for implementing into the computer because it allows for creating various designs as desired by the user.

As for Claims 37-41, Applicant respectfully traverses the Examiner's rejection and reasoning. Claim 37 of the Application provides as follows:

37. A system for fabricating a mold for producing a pressure intensifying device for use in consolidation fabrication wherein at least two cured structures are bound together using an uncured preform configured to an angular shape of a bound area between said cured structures, said system comprising:

a computer having an output and adapted to generate a virtual representation of a device for intensifying pressure, said computer further adapted to design said virtual representation to have a first contour with a first radius corresponding to said bound area and having a second contour with a second radius cooperable with said first radius for delivering a pressure to said preform which is greater than pressure delivered to said second contour, wherein said virtual representation is expressed in a data file;

a rapid prototyping apparatus having a data input for receiving said data file and operable to fabricate a three dimensional object having an inner cavity indicative of said virtually represented pressure intensifying device responsive to receiving said data file.

As noted therein, the Claim specifically limits the system that includes a computer specifically configured to, among other things, create "a virtual representation of a device for intensifying pressure..." Dependent Claims 38-41 necessarily incorporate such limitation. Applicant respectfully notes that the Examiner did not cite a reference to any device for intensifying pressure nor did Examiner support his position that it would have been obvious to one of ordinary skill in the art to modify Langer or Hull with different designs in the CAD files for implementing into the

computer, other than to state conclusorily that such is the case. Furthermore, Examiner does not show how the systems of Lang et al. and Hull can be combined with any other reference to form the present invention.

Applicant respectfully submits that neither the invention of Lang et al., nor Hull give rise to any suggestion or incentive to configure them to create a virtual representation of a device for intensifying pressure. There is no suggestion in either reference to combine them with another reference so as to arrange the elements in the manner described in Claim 37, from which Claims 38-41 depend. Thus, Applicant respectfully submits that the combination of the references falls short of rendering obvious the claimed invention.

*In re Bisley*, 197 F.2d 355, 94 U.S.P.Q. 80, 86 (C.C.P.A. 1952), the Court noted that “patentability is gauged not only by the extent or simplicity of physical changes, but also by the perception of the necessity or desirability of making such changes to produce a new result. When viewed after disclosure, the changes may seem simple and such as should have been obvious to those in the field. However, this does not necessarily negative invention or patentability. The conception of a new and useful improvement must be considered along with the actual means of achieving it in determining the presence or absence of invention. The discovery of a problem calling for an improvement is often a very essential element in an invention correcting such a problem. Though not the problem, once realized, may be solved by use of old and known elements, this does not necessarily negative patentability.”

Also, in discussing a rejection under 35 U.S.C. 103, the Court, in *In re Wesslau*, 147 U.S.P.Q. 391, 393 (C.C.P.A. 1965) stated “It is impermissible within the framework of Section 103 to pick and choose from any one reference only so much of its as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.”

#### **Other Reference Not Relied Upon**

The prior art made of record by the Examiner and not relied upon which is considered pertinent to applicant's disclosure are U.S. Pat. No. 5,134,569 (“Masters”). Applicant respectfully

responds that the foregoing reference, alone or in combination, does not anticipate the present invention or make the invention unpatentable under 35 U.S.C. 103(a). Specifically, Masters does not mention reference to the configuration of the system to provide a virtual representation of a device for intensifying pressure.

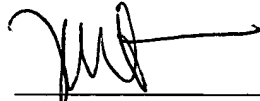
**Conclusion**

Applicant respectfully submits that Claims 37-41, now pending, are in condition for allowance. A Notice of Allowance is therefore requested.

If the Examiner has any other matters which pertain to this Application, the Examiner is encouraged to contact the undersigned to resolve these matters by Examiner's Amendment where possible.

Favorable consideration of the pending claims is respectfully requested.

Respectfully Submitted,



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